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ARTIFICIAL INTELLIGENCE AND APPLICATION DOMAINS IN FINTECH

Abstract:

Since late 2022, the rapid evolution of generative artificial intelligence and large language models has significantly accelerated the integration of AI into FinTech services, including credit scoring, fraud detection, algorithmic trading, and regulatory compliance. This rapid expansion of this literature identifies the need for taxonomic mapping of AI methods to FinTech application domains. In this article we have applied PRISMA 2020 guideline to peer-reviewed articles indexed in Scopus-and published between 2024 and early 2026. Using a systematic search strategy, 388 records were identified through database searching. Out of these articles, 144 articles met the eligibility criteria and were included in the review. Data were collected using a structured a coding sheet and synthesized through the taxonomic cross-tabulation of AI categories and FinTech application domains. The results show that machine learning, deep learning and natural language processing are the most frequently applied AI models and Random Forest, Long Short-Term Memory (LSTM) and BERT are the most applied AI algorithms in FinTech applications. The FinTech domains that are most heavily deployed are credit scoring and lending, fraud detection and security and cryptocurrency and blockchain applications. This article provides an AI-FinTech taxonomy that could serve as an evidence-based reference for academics, practitioners, and policymakers for the adoption of artificial intelligence in financial services.

Keywords:

Artificial intelligence, FinTech, machine learning, deep learning, natural language processing

JEL Classification: C45, G20, O33